

Work Order ID 63740

Friday, November 12, 2010 8:29:26 AM



Page 1

Item ID:	D3954-5	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Chain Lug					
Start Date:	11/12/2010	Start Qty: 5.00		Cust Item ID:		
Required Date:	11/19/2010	Req'd Qty: 5.00		Customer:		
Reference:						

Approvals:	Process Plan:	Date: 10-11-12	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3954	RevB								
100		0.00							
Mill Conv	Memo	0.00							
Conventional Milling Machine	mill to size								
110		0.00							
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3954								
	Dwg Rev: B								
	Prog Rev: B								
	2-Deburr if necessary								

M1010 B 12.00x1.00 M110368

10/12/02

6

5

B10-12-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 63740

Friday, November 12, 2010 8:29:26 AM

Page 2

Item ID: D3954-5

Accept

Revision ID:

Item Name: Chain Lug

Start Date: 11/12/2010 Start Qty: 5.00

Required Date: 11/19/2010 Req'd Qty: 5.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

10-12-2

5

125

0.00



Mill Conv

Memo

0.00

Conventional Milling Machine

Mill as per Dwg

10/12/06 6

Pto →

130

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

10/12/05

5

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3954-5 PAR #: _____ Fault Category: Machine NCR: Yes No DQA: _____ Date: 11/01/10
 Resolution: ⁽¹⁾ ACC. to tool / ⁽²⁾ Scrap Disposition: ⁽¹⁾ use as is ⁽²⁾ Scrap QA: N/C Closed Date: 11/01/11

NCR: 63740		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
(1) 10/01/05	# 120	Found at conventional milling that the ϕ . 75" (max) hole is measured max .758". Not a buildup when drilling to final. Re: Process R.C. water jet taper process	11.01.05	Qty x5 @ .758" is acceptable.	11.1.1.5	11.01.05 @ 11/01/05	11.01.05	11/01/05
(2) " "	120	Also found qty x1 with .75" hole elongated measure .760" x .735" R.C. water jet taper process	11.01.05	Scrap + destroy no replace part with elongate hole.	11.1.1.5	11.01.05 @ 11/01/05	11.01.05	11/01/05

NOTE: Date & initial all entries

Work Order ID 63740

Page 3

Friday, November 12, 2010 8:29:26 AM

Item ID: D3954-5

Accept



Setup Start



Revision ID:

Stop



Item Name: Chain Lug

Start Date: 11/12/2010 Start Qty: 5.00



Cust Item ID:

Required Date: 11/19/2010 Req'd Qty: 5.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

Identify as per dwg & Stock Location 97

0.00



Packaging

Memo

0.00

Packaging

11/1/6 SP (SD)

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/01/12

MF

10-01-06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Friday, November 12, 2010 8:29:31 AM

Page 1

Work Order ID: 63740

Parent Item: D3954-5

Parent Item Name: Chain Lug



Start Date: 11/12/2010

Required Date: 11/19/2010

Start Qty: 5.00

Required Qty: 5.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010B1.000X02.000		Purchased	No			100	f	11.4000	0.5	2.631579			



1010-1025 Steel Bar 1.00 x 2.00



B10-12-2

Location

Loc Qty

Loc Code

MAT

11.4

114431

11.4

m(010B1.000X012.000.
1010 1"x12"

12.5

110368

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	43740
Description: Chain Lug		Part Number:	D3954-5
Inspection Dwg: D3954	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.88	+/-0.030	.887	X		V B 02	
6.00	+/-0.030	5.997	X		V	
1.50	+/-0.030	1.496	X		V	
5.250	+/-0.010	5.250	X		V	
3.25	+/-0.030	3.25	X		V	
2.63	+/-0.030	2.63	X		V	
1.06	+/-0.030	1.06	X		V	
0.385	+0.025/-0.000	.392	X		V	
0.31	+/-0.030	.306	X		V	
0.25	+/-0.030	.25	X		V	
1.06	±0.030	1.065	-		RA26	
.385	±0.025	.394	-		RA26	
.31	±0.030	.296	-		"	
Ø .375	±0.006	.376	-		"	
.750	±0.010	.753	-		"	
.370	±0.010	.365	-			
.253	±0.010					
.253	±0.010	.259			"	
Ø .75	±0.030	.758				See P/b on Page #2

Measured by: <i>RB</i>	Audited by: <i>S</i>	Prototype Approval:	N/A
Date: <i>10-12-2</i>	Date: <i>11/01/05</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	09.06.11	New Issue	KJ	
B	09.11.04	Dwg Rev updated	KJ	

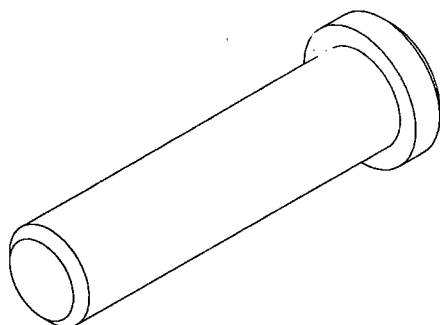
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

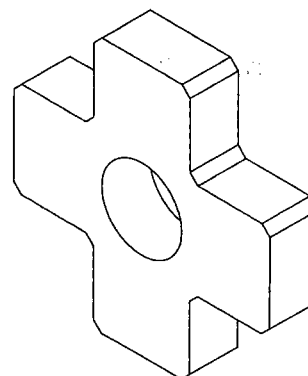
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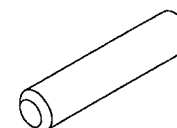
NOTE: Date & initial all entries



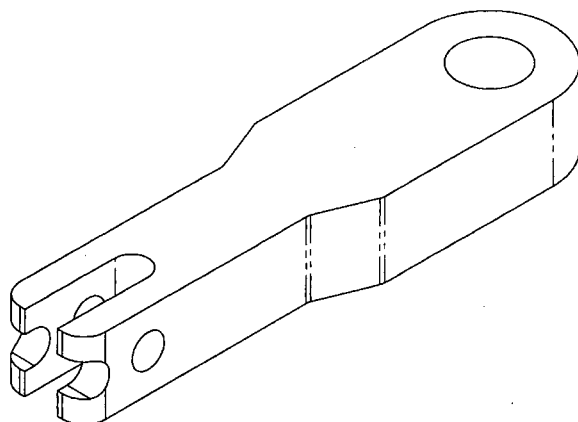
D3954-1 GWT PIN



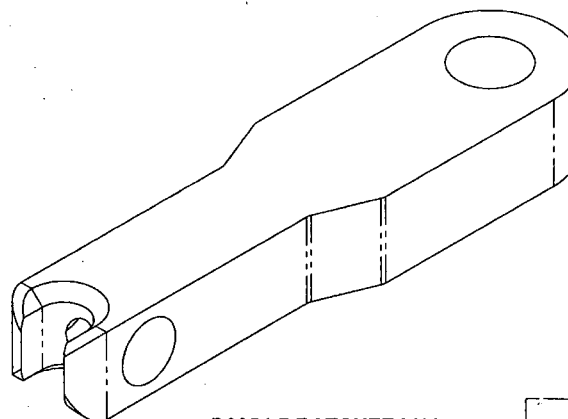
D3954-3 GWT KNOB



D3954-9 GWT CHAIN PIN



D3954-5 CHAIN LUG



D3954-7 RATCHET LUG

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 43740
B-10-11-12

RELEASED
R 2009 -10- 19
MP

B	MATERIAL UPDATE FOR ALL COMPONENTS WAS STAINLESS STEEL IS CARBON STEEL FOR ALL COMPONENTS. FINISH FOR ALL COMPONENTS WAS RED POWDER COAT IS YELLOW SPRAY PAINT.		AJS	09.10.15
A	NEW ISSUE		AJS	09.05.26
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS/DSTOW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	AJS			
CHECKED		DRAWING NO. D3954	REV. B	
MFG. APPR.		TITLE	SCALE	
APPROVED		MISC MACHINED PARTS GWT KIT	NTS	
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		
DATE	09.10.15			

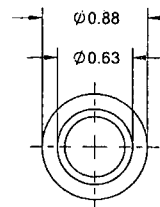
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

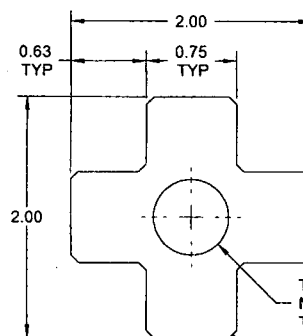
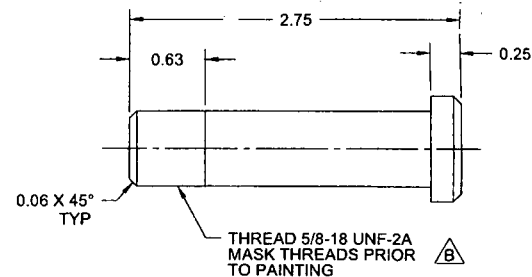
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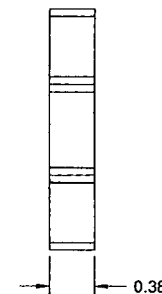
NOTE: Date & initial all entries



D3954-1 GWT PIN



D3954-3 GWT KNOB



NOTES:

1) MATERIAL -1: AISI 1010-1025 MILD STEEL ROUND BAR
PER DART SPEC M1018-R

-3: AISI 1010-1025 MILD STEEL SHEET
PER DART SPEC MS1010-S

OR: AISI 1010-1025 MILD STEEL BAR
PER DART SPEC M1010-B

ALTERNATE MATERIAL:

-1: AISI 303/304 STAINLESS STEEL ROUND BAR
REF DART SPEC M303/304R

-3: AISI 303/304 STAINLESS STEEL SHEET
REF DART SPEC M303/304S

OR: AISI 303/304 STAINLESS STEEL BAR
REF DART SPEC M303/304B

- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -1: 0.26 lbs
-3: 0.23 lbs

RELEASED
2009-10-19

DESIGN	AJS/DSTOW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

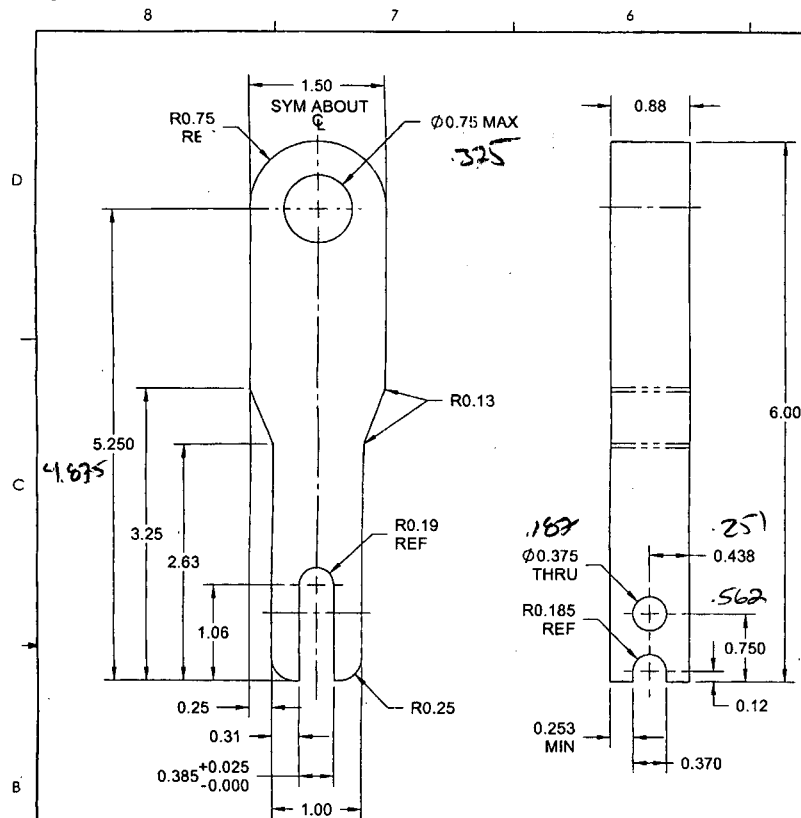
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3954-5 CHAIN LUG

NOTES:

1) MATERIAL: -5/-7: AISI 1010-1025 MILD STEEL BAR
PER DART SPEC M1010-B

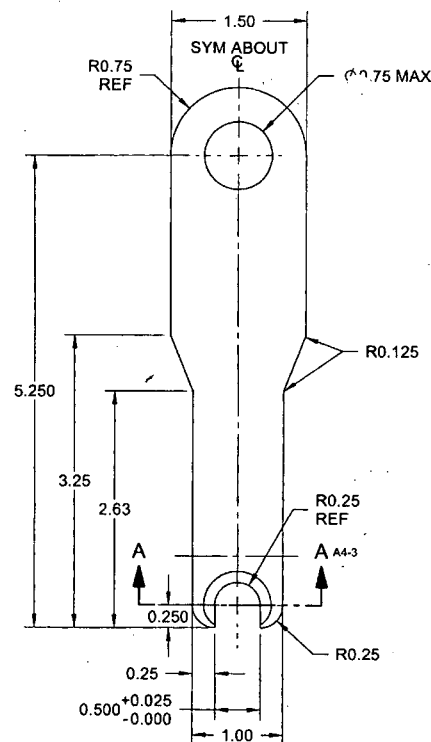
9: AISI 1010-1025 MILD STEEL ROUND BAR
PER DART SPEC M1018-R

ALTERNATE MATERIAL:

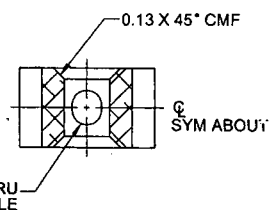
-5/-7: AISI 303/304 STAINLESS STEEL BAR
REF DART SPEC M303/304B

-9: AISI 303/304 STAINLESS STEEL ROUND BAR
REF DART SPEC M303/304R

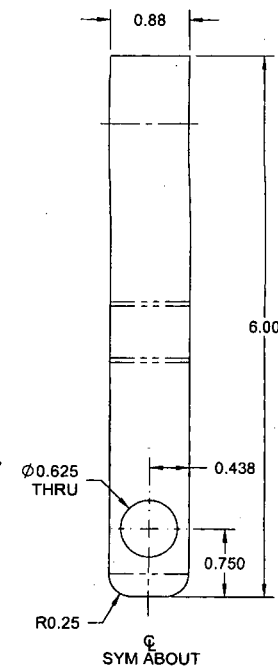
- 2) FINISH -7 ONLY: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT -5/-7: 1.56 lbs EACH
-9: 0.05 lbs



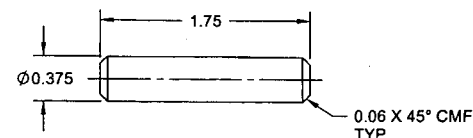
D3954-7 RATCHET LUG



SECTION A-A C3-3



D3954-9 GWT CHAIN PIN



DESIGN	AJS/DSTOW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 3 OF 3
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RELEASED
2009-10-19

W/O 43740

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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